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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/725,073	12/01/2003	Eiji Ohta	09792909-5742	2729

7590

05/02/2005

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EXAMINER

WALSH, DANIEL I

ART UNIT

PAPER NUMBER

2876

DATE MAILED: 05/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/725,073	OHTA ET AL	
	Examiner	Art Unit	
	Daniel I. Walsh	2876	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 15 January 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Receipt is acknowledged of the Response of 15 January 2005.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

2. Claims 1-16 rejected under 35 U.S.C. 103(a) as being unpatentable over Ota et al. (JP 2002-163624).

Ota et al teaches an IC card with an IC chip 5 mounted on an insulating substrate 1 having an antenna coil 3, and a chip reinforcing plate (9, 9') provided on at least an IC mounted surface of the insulating substrate, a core layer 13 comprising a plurality of sheet materials 15,16 having an IC module disposed therein. Though Ota et al. is silent to through holes/cavity/recess

for the IC module, the examiner notes it is well known and conventional to have such a hole/recess in order to fit the IC module into the core, and therefore such modification is well known and conventional in the art, as an obvious expedient. For clarification purposes, the Examiner notes that though Ota et al. is silent to through holes/cavities, that FIG. 1 shows an arrangement where an IC chip and reinforcing plates are disposed in what appears to be a holes/cavity (interpreted as a through hole by the Examiner). In FIG. 1, the height of the hole appears to be equal to that of the projections, thus satisfying the relationship set forth in the claims. Furthermore, as shown in FIG. 1, as the areas above and below the chip are totally sealed with resin, the relationship $A=(B1+C1)\pm 30$ micrometers is satisfied. It is interpreted by the Examiner that upon formation of the card by pressure, that a through hole is created. As the claims do not recite that the through hole is cut before chip placement, Ota et al. is believed to read upon the claimed limitations.

Re claims 2-5, the Examiner notes that as the space is filled with resin/sealant (no gap), the relationships are satisfied.

Re claim 6, though Ota et al. is silent to multiplayer core/bases, the Examiner notes that multilayer core/base card structures are well known and conventional in the art, and therefore an obvious expedient (see US 5,346,576, 6,352,767, 5,888,624, 5,304,513, and 5,026,452 for example), and provide added structural benefits as is well known and conventional in the art.

Re claim 7, display layer 20 is a rewritable display layer.

Re claims 8-9, Ota et al. teaches the limitations (paragraph [0037]+)

Re claims 10-16, the limitations have been discussed above.

Response to Arguments

3. In response to the Applicants argument that Ota et al. fails to teach an IC card with a plurality of sheet materials wherein at least one of the sheet materials adjacent the IC has a through hole for containing therein an IC chip, the Examiner disagrees. FIG. 1 shows that the chip is formed in sheets 15,16 (of the card layer) where an IC chip is mounted on an insulated substrate having an antenna coil and a chip reinforcing plate provided on the substrate. As the Applicant has not explicitly defined "through hole" the Examiner has interpreted the hole/cavity formed by the formation of the card as a through hole, as it's a cavity/hole through part of the sheet material that is formed as the card is formed. Accordingly, relationship $A = (B1 + C1) \pm 30$ is satisfied because the sum of the heights of the through holes appears to be equal to that of the sum of the heights of the projections, much in the same manner as Applicants FIG. 5 and FIG.6 appear to show a relationship where the through hole and projection heights are equal.

The Examiner notes that the Applicant has not claimed that the through holes are formed prior to chip insertion, so the prior art is interpreted to read upon the claims.

Additionally, the Examiner notes that Masahiko (US 5,852,289) appears to also teach that it is well known to have a cavity upon which a chip with reinforcing plate is inserted, and it appears that there is no gap between the projection and the hole (which would meet the limitations of the relationship set forth in the claims). It appears to the Examiner that general teachings of an IC card in which there is no gap between the cavity and the top of the chip easily reads upon the claimed relationship, as the limitations regarding an antenna mounted on a insulating substrate, a reinforcing plate, and a multilayer core structure are all conventional in

card manufacturing. The Examiner notes that prior art references which teach no/little gap between the chip and the cavity/hole appear applicable.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Kobayashi et al. (US 5,346,576 and US 5,250,341), Ohashi et al. (US 4,879,153), Ohta et al. (US 2004/0169086), Bashan et al. (US 6,719,206), and Hirai et al. (US 6,607,135).

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel Walsh whose telephone number is (571) 272-2409. The examiner can normally be reached between the hours of 7:30am to 4:00pm Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee can be reached on (571) 272-2398. The fax phone numbers for this Group is (703) 308-7722, (703) 308-7724, or (703) 308-7382.

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [daniel.walsh@uspto.gov].

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set for the in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.

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Page 6

D. Walsh

DW

4/17/05

A handwritten signature in black ink, appearing to read 'Karl D. Frech', written in a cursive style.

KARL D. FRECH
PRIMARY EXAMINER